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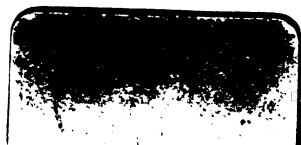
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**Health Tracts.—No. 5.**

**THOUGHTS ON BATHING.**

**BY DR. WM. A. ALCOTT,**

Author of the Young Husband, Young Wife, Young Housekeeper, Young Mother,  
House I Live in, Young Man's Guide, &c.

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## THOUGHTS ON BATHING.

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THE word Bathing is of very general application, and requires a particular, though brief definition.

Bathing may be either local or general. Some indeed always connect with the word bathing the idea of entire submersion in the water ; but this is not the more correct definition. It is usual, even with physicians, to speak of bathing a part of the system, as well the whole of it ; as the head, a wrist or an ankle. It is with general bathing, however, that we have principally to do, in the present article. Of this there is a great variety of forms ; among which are the hot, the warm, the cold, and the medicated baths.

The warm bath is also sometimes spoken of in two ways. When the water used is below about 90° of Fahrenheit's thermometer, instead of being called the warm bath, it is usually called, especially in books, the tepid bath.

There are also several ways of applying water of every temperature, besides the more usual one, that of immersing the whole body. These have given rise to the various names of shower bath, sponge bath, hand bath, *douche*, or dash, &c.

When the temperature of the water in which we bathe is much above the temperature of the blood, viz., 98° of Fahrenheit, and especially when it rises to 108°, or 110°.

it is called the *hot* bath. When it varies from about  $90^{\circ}$  to  $98^{\circ}$ , not exceeding the latter, we call it the *warm* bath. The tepid bath has been sufficiently described.

When we are immersed in water, of a temperature much below  $80^{\circ}$ ,—or at least below the temperature of the surrounding atmosphere at the time—we experience a sensation of cold; and this sensation will be more or less disagreeable, in proportion as we are more or less able to resist its influence, by generating new heat in our systems. This is the more common form of the cold bath.

Perhaps there is no country in the world favored with greater facilities for bathing, than the United States; and yet there are few portions of the civilized world in which it is believed to be so generally neglected. For while almost every family has water in the greatest abundance, at or near the door, in the form of river, brook, pond, or well—sometimes nearly all of these—how few individuals ever bathe their whole bodies in it twice in a year!

That water is indeed pretty freely used, in cooking, washing, and irrigation, is freely admitted. That a considerable quantity of it is also used in the various mixtures among us, called drinks, is equally undeniable. It is indeed true that for the latter purpose, it is seldom used in its pristine condition—nature's own state. Thus what we call tea, coffee, chocolate, beer, cider, and even distilled liquors,—though for the most part chiefly water, and some of them nearly all such—are all of them more or less impure and unwholesome, having more or less foreign or poisonous substances infused or mixed with them. Still, in some point or other, this elementary substance is much used; and if wholly withheld by Heaven but for a single week, would prove the destruction of thousands and millions of our race.

We cannot dwell, in this place, on the importance of a much more free use of this rich gift of Heaven, in its va-

sious forms, but especially as a common drink, because the consideration of the subject would carry us quite aside from our proper path. We have been led along thus far, merely to show that though water is used extensively every day, its use is still but trifling compared with its amazing abundance and real value. Many a family rarely uses, for all its various purposes, much more than a single hogshead of it in a week, when it would be pleasant and healthy to use a dozen hogsheads, or perhaps fifty.

Moses, the Jewish lawgiver, divinely instructed as he was, seems to have understood, far better than we, the legitimate uses and true value of water. So with the Hindoos and Egyptians, and in fact, most nations of the East, both of ancient and modern times.

Should it be said that though bathing may be necessary in hot climates, it is not so in ours, we might refer to the inhabitants of Russia, and of many other regions, who, with a climate quite as cold as ours—in some instances much colder—have ever been in the habit of paying much attention to bathing, both in warm and cold water.

Perhaps, however, no people of ancient or modern times have better understood the use of water as a luxury, than the Romans. Cameron, in a work on Bathing, estimates the public hot baths of the Roman emperor, Antoninus, as sufficient to hold 235,862 persons at once, or to accommodate several millions of people in a day. But admitting that there is some exaggeration in his statements, the accounts given of the hot baths of Dioclesian, which would accommodate 18,000 persons at once, or 360,000 a day, may be entirely relied on. And yet, have we thought of the amazing quantity of water required for these baths? Admitting it were only eight cubic feet to the individual, the amount would be about nineteen millions of gallons, or more than 300,000 hogsheads. Nor

should we forget the number of laborers required, and the great quantity of fuel which would be necessary.

But to the hot, or even the warm bath, as a luxury—and as such for the most part it is used—we are not now endeavoring to call forth the public attention. Still, if such an amount of water could be *heated* daily in the “eternal city,” and if the Egyptians, Turks and Hindoos, —and we might have added, almost all other nations—can afford the expense of so much warm water, cannot those among us who have it in the greatest possible abundance, at our very door—can they not, we say, afford a few hogsheads, daily, of that which is not at all heated.

Is it said that none but the hot and warm baths are ever regarded as a luxury, and that the cold bath, in all its forms, is tedious to all, painful to many, and to some, injurious?

This opinion is founded in mistake; and the mistake arises from ignorance and misapprehension. We do not, indeed, proscribe the hot, the warm, or the tepid bath. All these are often useful for medicinal purposes, as well as sometimes salutary to the healthful. But the cold bath, properly managed, is perhaps still more so; nor is it much less a luxury.

Who is there among us that has not often observed, if he has not experienced, the grateful effects of sponging the wrists, while excessively heated, especially when not greatly overheated? Who has not been refreshed, in a hot day, by washing his head and face in cold water? Who has not been also refreshed by swallowing pure cool water, in small quantities at a time, during the progress of a sultry July day? \* And what individual—

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\* This, by the by, is a species of cold bath—in which the water instead of being applied to the external skin, is applied to that lining membrane of the stomach and intestines, which so readily and powerfully sympathizes with it.

imprudent though he were—who, while greatly heated at labor or recreation, has drunk cold water in large quantities, or plunged suddenly into a cold stream, has not found the first effects grateful—the remote evil consequences to the contrary notwithstanding?

Nor is this all. There are hundreds—perhaps thousands—of persons who find cold bathing,—local and general,—not only tolerable, but at times a luxury in its immediate effects, and quite exhilarating in its consequences. Some whom we know, have come, by long habit, to find in the cold bath even in the coldest weather, no sensation but those which are agreeable ones. Little children learn, in fact, in some instances at least in the hot season, to climb into the bathing-tub and immerse themselves for the mere enjoyment of it.

We believe also that most persons may, in time, be trained to this condition. We have, in truth, too many facts before us, to permit us, for a moment, to doubt on this subject. The Author of nature has not, as a general rule, rendered our duty either painful or incompatible with a good degree of pleasure. And even where duty requires a little self-denial or sacrifice at the first, the force of long habit, at least when to this are joined pleasant associations, renders it at length agreeable.

But cold water is not only pleasant, it is healthful. Let it not be supposed that the Creator has bestowed the gift of water on his intelligent creatures in such exceeding abundance, to be used in quantities so stinted as is now common among us. There is a fixed or constitutional relation between water and the surface of the human system, which cannot be wholly overlooked without jeopardizing the interests of that system. And though there are thousands—we fear millions—to whom such an assertion might seem strange, we know it, nevertheless, to be truth; as much so as that two and two make four.

The beneficial effects of water, in its application to the surface of the human body, are of two kinds, **CLEANSING** and **INVIGORATING**; and one of these effects—usually both—may be, and always should be secured. We are first to speak of water in regard to its **CLEANSING** effects.

During each moment of our healthy existence, there is a constant exhalation of moisture from the whole surface of the human body. So abundant is this moisture, that when by any cause whatever, its evaporation is retarded or absolutely prevented, it appears on the skin in drops.

This latter phenomenon—the accumulation of water on the surface of the human body, in certain circumstances—is so common among us, that it ceases to excite surprise. A person in the condition to which we have alluded, is said to perspire freely, or in popular language, to *sweat*. Indeed, to many it seems not to be known that we perspire at all, except when the matter perspired appears in drops, larger or smaller. Whereas, to repeat what has been already said, there is no healthy moment of our lives when a vapor is not issuing from the whole surface of our bodies—the small spaces occupied by the nails, the eye-balls, and the roots of the hair, perhaps excepted—in very minute particles, in quantity so great as quickly to dim a bright looking-glass when brought very close to it, even to as small a part as the tip of a finger; and to appear, when viewed through a powerful magnifying glass, like a thick steam or fog, completely enveloping us.

When the perspiration of our bodies thus becomes visible and tangible, it is called *sensible* perspiration; when invisible to the naked eye, the perspiration is called *insensible*. The latter, or *insensible* perspiration, may be said to bear some resemblance, in one respect, to that moisture with which the atmosphere is always supplied, in which every living thing, vegetable or animal, is as it were, immersed; and without which, nothing could long exist.

The former, or *sensible* perspiration, or sweat, may be said to resemble that moisture, which, by a sudden change in the temperature of the atmosphere, or in the bodies immersed therein, becomes visible in the form usually called dew.

We have said that no living thing, vegetable or animal, could long exist unless the air were thus replenished with water; and we have more than hinted at what is equally true, that no person could long exist were it not for the constant going on of insensible perspiration. By this, however, we do not mean to say that neither sensible perspiration in the one case, nor dew in the other, are ever useful; though they are most undoubtedly *less* useful in ordinary circumstances than is usually supposed. Our main purpose is to show the greater importance and more imperious necessity of the application or exhalation of that moisture which is not so sensible.

That there are moments of our lives—nay, even considerable seasons, in some instances—when the insensible perspiration of our bodies does either partly or wholly cease, we do not deny. It is this which constitutes, or at least gives rise to the symptoms of what is commonly called a cold; and it is not at all uncommon for fevers and bowel complaints, to say nothing of jaundice, rheumatism and consumption; to result from the same cause. We only insist that in a state of perfect health, and when there is no mechanical obstruction present, the insensible perspiration of our bodies never ceases.

Is it here asked what we mean by mechanical obstructions? They are of various kinds; some more and others less permanent. While we are immersed in a bath, cold or hot, it is quite obvious that the perspiration must be obstructed; and this obstruction we call mechanical. It may also be partially checked by tight or improper clothing. But the greatest, if not the most permanent



obstruction of the kind, however, is produced by particles of dust. For whether the moisture of our bodies—the perspirable matter—cozes out through little pores in the skin, ten thousand of them to a square inch, as was once supposed, or escapes in some other way, one thing is quite certain; viz., that dirt on the skin must prevent its free transmission.

The dust accumulates on the surface of our bodies much more readily, and adheres much more firmly and in much larger quantities than is usually supposed; and than, by many, would be credited. Mr. Buckingham, the Oriental traveller, asserts that from two to three pounds of it are sometimes removed from the whole surface of a person who has for some time neglected bathing and washing in a tropical climate; and such, under some circumstances, may possibly have been the case. For not only does the moisture of the skin favor its accumulation, but so also does the oily substance continually poured out by the small bottle-shaped glands—sebaceous glands, as they are called—which are found in the skin, in great numbers, with their mouths opening on its surface.

Nothing, indeed, can be more obvious to an enlightened and reflecting mind, than the indispensable necessity of frequent ablutions of the body, in some form or other. It will indeed be said—it is often so said—that much depends, in this respect, upon the nature of our occupation. The farmer, the smith, the manufacturer—the individual, in one word, whose employment is most uncleanly—will be thought to need frequent attentions of this kind; while those whose employments are quiet and sedentary, will need them less frequently.

But it should not be forgotten, that although frequent bathing and cleansing are indispensable to those whose employments expose them unusually, to dust, yet they are scarcely less necessary to the sedentary, and for the fol-

lowing reasons. The active nature of the employments of the former, and their exposure to the open air, break up the coating of oil and dirt, with which they are enveloped, and render it more pervious to the matter of perspiration, than the thinner but not less tenacious varnish which covers the surface of the sedentary. On the whole, therefore, we regard frequent bathing and thorough cleansing of the skin as of nearly equal importance in all the varied circumstances of age, sex, climate and occupation.

We have alluded to the importance of exposing the skin to the surrounding air. We might have spoken also of the importance of light. Both of these are no less indispensable to the health of animals—and of man among the rest—than to that of plants. And yet who does not know that the latter are not only paler, but possessed of more feeble vital powers when stinted in regard to light and air, than when they are furnished with an abundance of both, especially the last mentioned? Who does not know that they freeze sooner, as well as suffer sooner from violent heat?

How these agents affect human health, through the medium of the skin, we cannot stop here fully to inquire. We must not, however, omit to observe, that whatever changes take place in the lungs, by the action of the air upon the blood in the small vessels of those organs, to purify and renovate it, take place also all over the surface of the body; that in this respect, therefore, the skin may be regarded as a sort of appendage of the lungs; and that if the skin be varnished over with a mixture of oil and dust, so that it cannot perform its office, an unreasonable burden will be thrown upon the lungs, which will thereby be weakened, and predisposed to disease. We have not a doubt that an universal neglect of cleanliness not only favors, in this way, the production of lung diseases, especially of those colds which are so frequent in

our climate, and which often pave the way for other and still more dangerous diseases, but also that it tends to aggravate such diseases of those organs as may already exist, or to whose existence there may be in us—either by inheritance or otherwise—a predisposition.

This temporary suspension of the offices of the skin is, however, peculiarly dangerous to those who are of light complexion, slender form, with a long neck, and narrow shoulders projecting almost like wings, indicating a chest whose internal organs as well as external dimensions are comparatively small and feeble, and therefore poorly prepared to do that work which belongs to other parts or organs. Let all persons beware of compelling the lungs *to work for the skin*; but above all, those of the particular structure to which we have alluded.

It is the importance of exposing our skins sufficiently to light and air, which enhances greatly the importance of a due attention to bathing by those who lead a life of confinement, and supposed freedom from exercise and dust. Let not students, professional men, clerks, merchants, house-keepers, milliners, factory girls—no, nor indeed any living human beings—consider themselves exempted, in any considerable degree, by their employments, from the necessity of bathing. We repeat, with much confidence, the assertion, that as a general rule, to which there can possibly be but few exceptions, every healthy person in the world ought to bathe daily, even for the sake of cleanliness.

But in considering the various kinds or forms of bathing, it becomes necessary to allude to the second great object to be secured by it: viz., its INVIGORATING effects. Bathing should, in all ordinary cases—and indeed may—be so conducted as to strengthen or invigorate both the mind and the body, at the same time that it performs for the latter the indispensable work of cleanliness.

We are usually, perhaps always, invigorated by bathing when it is followed by what is called in medical books and by medical men, a *re-action*. This re-action is indicated by an increase of warmth, activity, greater or less pleasure and strength, on coming out of the bath. If, on the contrary, we feel more dull or dispirited, and are more pale or feeble than before, and if this state of things is not easily removed by a little brisk exercise, we are not only not benefited, but sometimes positively injured, and may therefore conclude that something is wrong in the attending circumstances of the exercise. These it will be therefore necessary for us to consider; and this opens the way for particular directions to those who wish to set about, at once, the discharge of an imperious duty.

**WHEN TO BEGIN.**—As we have already suggested, begin now, at this pleasant and beautiful season. Do you say you cannot bear the shock, or it is inconvenient, or you have no time, or you do not know which form of bathing is best for you to begin with—the shower bath or the tub bath, the warm bath or the cold bath, &c.? On all these points and several others, we shall endeavor to render you some assistance in the remarks which follow.

**EARLY HABITS.**—Some regard must be paid to former habits. If your constitution of body is what is usually called delicate—if you were brought up by either parent, as in a band-box—if you have been always accustomed to tight, warm rooms, warm clothing, soft feather beds, over-heated food, &c.—if you have never washed any thing more than the tips of your fingers, in your whole life, and these only in warm water—in short, if you have either been babied all your days, instead of being treated like a rational being, or on the other hand, neglected instead of being educated or trained in the way you

should go, then, however important the work of immediate reform may be to you, it will require considerable time to inure you to that which, to an old soldier, would not be at all difficult. And although we have seen the most delicate persons, both male and female,—where their confidence in the prescriptions of their physician was strong—commence a course of cold bathing, by his advice, in the severest part of the winter, and under many of the most unfavorable circumstances, yet we would not, as a general rule, advise to such a course, as it might, in a few instances, be attended with some danger.

**How to COMMENCE.**—No individual can probably be found—even amid that general, practical dread of water among us which seems to amount, almost, to a national hydrophobia—who does not at least wash the tips of his nose and fingers once a day.\* Now let those who are fully convinced that the whole body ought to be washed daily—if it be in cold weather—begin by washing something more than the fingers, or the nose. Let the wrists be washed to-day; to-morrow, perhaps, let the washing be extended a little further towards the elbows and the neck; in a few days let it be the rule to wash the whole arms and neck; and finally, let the breast and shoulders be assailed. If there is full confidence in the utility of bathing, all this need not require more than a week or a fortnight.

Or if it be preferred, another method will answer equally well; which is, to begin by dipping a towel in

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\* We have indeed known a few individuals, of both sexes, who for weeks together did not touch their faces with water—hot or cold; some for fear of spoiling the beauty of their skin, but others from mere negligence and slovenliness. Creatures of God, they indeed were; but hardly deserving the name of *rational*!

water, and after wringing it partly dry, carrying it gradually—that is, extending it farther from day to day—over the parts of which we have spoken. In either case, the battle may be considered as more than half won when we can resolutely and fearlessly and uninjured wash thoroughly the upper half of the body. The washing of the lower part of the body will come in soon, almost as a matter of course.

We have never known an instance, even in the case of the most delicate female or infant, in which a re-action could not be secured, if the hitherto unexposed parts of the system were assailed in this gradual manner. Most of us, no doubt, have heard of the reply of the naked Scythian to Alexander. The latter, having asked the former how it was possible for his countrymen to go without clothes in so cold a climate, was answered by another question—How can you go without any covering on your face? My face is used to it, was the reply. Well, then, consider us as all face, replied the Scythian. In like manner, he who comes to the habit of cold bathing gradually, finds little more difficulty in securing a general re-action, or glow of warmth, on the surface after it, than they do who only wash their hands and faces, in securing a re-action in *those* parts. And yet, who ever saw a pair of hands or a face that was not both redder and warmer immediately after washing than before?

**TEMPERATURE.**—Some may suppose that the difficulty of inuring the body to cold water, in those cases to which we have alluded, might be more readily overcome by the application of water, at first, of a higher temperature, and afterward gradually lowering it. But this is a mistake. The application of warm water to parts of the surface to which we have not been accustomed to apply water in any form, will be less likely to be followed by a sensation of

general warmth, than will the application of this fluid at a temperature at least as low as that of the surrounding atmosphere. In the application of warm water, the first sensation, it is true, will be more agreeable, but this will soon be followed by a sensation of coldness, greater or less, according to circumstances. The warm water appears to weaken the skin—or rather to diminish the nervous energy of this membrane—and thus to prevent that re-action and consequent warmth which so often follow the application of cold water. We repeat, therefore, the general rule; which is, that those who have never been accustomed to cold bathing in any of its forms, and who fear the consequences of a beginning, should never begin with water warmer than the air which surrounds them. Indeed, we have usually found that the feeble and delicate endure it best at a temperature much lower still. The stronger the sensation of cold, the greater the re-action and consequent warmth, provided always, that the effect of the cold is not overwhelming or too long continued; but this will never happen if we proceed in the gradual manner above mentioned.

HOW LONG TO BATHE.—We have alluded to the danger of continuing the application of cold water too long. Some will be inclined to think there is a little clashing between the doctrines indicated by this caution, and the idea of making the bathing a cleansing process. It ought, however, to be remarked, in this place, that we do not think it advisable for the delicate—those who find it difficult to commence the work of daily bathing in cold water—to attempt to bathe and wash at one time, till the habit has become confirmed by the lapse of several months. They should use a full—not a partial—warm bath once or twice a week for the purpose of washing. The more sudden the application of the cold water by the class

of persons of whom we are now speaking, to the part or parts unaccustomed to it, and the sooner it is followed by wiping the skin dry, by a little friction, and by warm clothing and exercise, the better.

It is the neglect of this rule—an utter ignorance, rather, of its existence—that, more than any other single thing, has led many to the premature conclusion that they cannot endure cold bathing. There are few—we repeat the sentiment—who cannot endure it, if they begin right. For the benefit of those whose constitutions are either very delicate, or who fancy they are so—for the more healthy and robust need not, we repeat it, be so very cautious—we would recommend a course something like the following. Let not the reader complain of tediousness, if, in order to be understood, we repeat some of the ideas we have already presented.

Select for the purpose of commencing the habit of cold bathing, that hour of the day, and those circumstances in which you find yourself, in general, most cheerful, most vigorous, and in the most happy temperature. Or if you are a little warmer than usual, it is no matter, provided you are not fatigued or depressed in mind or body. The season to which we refer will, probably, be found to be about the middle of the forenoon; though with many, it may be a little earlier; and with a few, somewhat later. We are fully aware that the moment immediately after rising is recommended by some writers; but we prefer the time we have just mentioned. We would begin, moreover, in one of the warm months, June, July, August or September.

Having then selected your hour, remove your clothing, and wash your hands and face well with the *coldest* water—for this we must again say we prefer—you can readily find, and then after wiping them dry with a coarse towel, rub the whole body briskly with the same cloth. Let the



friction be not only brisk, but somewhat severe. This, for the first effort, will be sufficient. The next day not only wash the hands and face, but also the wrists; and wipe again, adding friction as before. The third day the washing may be extended to the elbows; the fourth, to the shoulders; the fifth, to the neck; the sixth, to the upper part of the chest; the seventh, to the whole chest; the eighth, to the whole head; the ninth, to the back, &c. In every instance, the application of the water with the hand or towel (for if you choose, the water might be applied with a towel wrung partially dry) and the friction, should be as rapid as possible. With the delicate and tender, it is only when they have become somewhat inured to the practice, that they may venture to be more slow, and thus combine the two purposes for which water is applied to the human body; viz., cleanliness and an increase of vigor.

PROPER HOUR OF THE DAY.—We have alluded to this part of the subject in one of the preceding paragraphs, but not so particularly as its importance seems to us to demand. Many, we have already said, prefer to bathe at rising. And if the question be whether it shall be used at that time or not at all, we should advise the same course.

Immense mischief has been done, and a prejudice, almost insurmountable, has been raised against cold bathing, in consequence of its abuses. It is common in many parts of the country for young men—and sometimes old ones—to bathe every Saturday night about sunset. They retire to some stream, frequently a cold one, or to a shaded mill-pond, and there, partly as an amusement, partly for the purpose of cleanliness, and partly to acquire the art of swimming, they plunge into the water, and remain in it for some time. The individuals who bathe thus, are

usually laborers, who, having been employed diligently—sometimes violently—during the whole week, are in the very worst possible circumstances to receive benefit from it. Saturday evening is the worst time in the week which could be selected for such a purpose, for it is precisely at this period that the system is most debilitated, and the body and mind are most oppressed by fatigue, excessive heat, and errors in eating and drinking; and consequently least able to withstand the chilling effects of the cold. A few persons may be found who are afraid of the consequences, and to avoid them, sit down on the bank of the pond or stream and cool themselves before they venture in; but this does not at all lessen the danger. The custom is of itself wholly wrong, and deserves the severest reprehension.

Nor is Sunday morning a more favorable season—to say nothing of breaking in upon the Sabbath—although we have known many who selected it. The early part of the week, say about Monday, Tuesday or Wednesday, is the best for these things, if attended to at all; and the best hour—to repeat an opinion already advanced—is about the middle of the forenoon, when this hour is at our command.

It will undoubtedly be objected, that if the season for swimming we have mentioned, viz., Saturday night and Sunday morning, is to be rejected because it is wrong, physiologically—then multitudes who now learn to swim at these seasons, would be obliged to dispense for life with this important art, for their labors are so unremitted as to leave them no other opportunity for this purpose. We grant that such might be the result; but if swimming be as important an art as this objection supposes—and we have no doubt it is so—another time ought to be devoted to its acquisition.

Some will doubt whether there is, after all, much dan-

ger to the health from the practice we are opposing; and will perhaps point to many elderly persons who are healthy, notwithstanding they always, when young, resorted to it. Our reply to such persons is, that the individuals to whom they refer are only healthy, at most, in spite of their erroneous habits; and not because the habits themselves were right; just as many aged persons appear to be healthy, notwithstanding the daily use, for a long series of years, of alcohol, tobacco, opium, or other equally pernicious drugs or substances. But the real truth, in both cases is, that the individuals are not healthy; and we are willing to relinquish all our claims to correctness of sentiment on the whole subject in question, when a person of fifty or sixty years of age can be produced who has either used, daily, for a series of years, any of the substances we have named above, or bathed for the same length of time, and in the manner above described, either Saturday night or Sunday morning, and is yet perfectly free from disease in every form. Such a person, we are confident, cannot be found in the world. But if not—if all such persons are more or less diseased—then who shall say that their complaints did not arise from the causes we have mentioned? They certainly had a cause of some sort or other. They sprung not, we say again, “from the ground.” Even if the disease is nothing but a slight periodical headache, an occasional twinge of rheumatism, a stitch in the side, a slight tenderness of the abdomen, acidity of stomach, habitual costiveness or relaxation, or piles, a tendency to cold, or to undue fatness or leanness of body, it is nevertheless a disease, and had its causes; and those causes might have been avoided or prevented.

FORMS OF BATHING.—But to return more specially to the subject of bathing, in its varied forms. Much indeed

which might properly come under this head, has been anticipated, but much yet remains to be said.

The question is often asked—But which mode of bathing is best? To which we might make two replies, both true, and yet both a little paradoxical. We might say, Every mode is best; and we might also say, Neither is best. Or in other words, All modes are good in their place, but what is best for one, is not always best for another; and no mode is good in all circumstances. Much depends, too, on the object for which we bathe. If our sole object were cleanness, the warm or rather the tepid bath would, most undoubtedly, be the best. On the contrary, if the invigorating effects of a re-action are the only, or even the main thing aimed at, then the cold shower bath, or a plunge in cold water would be the best for those who were already robust and healthy.

Perhaps it may be said, that as a general rule, the cold shower bath, if persisted in daily, is as useful as any; for while with the aid of a good deal of friction, it subserves, in no small degree, the purposes of cleanliness, it secures at the same time, in a most eminent degree, all the benefits of a re-action.

The medicated bath—even when the only medicinal substance used is salt—the hot bath and the warm bath (proper) should be used solely for medicinal purposes. We do not say they should never be used, except when prescribed by a physician; but we do say, that in strictness of language, they are always medicines.

The tepid bath, if used by the healthy, should be used about two or three hours after the evening meal, that is, just before going to bed; or about three or four hours after dinner, and an hour or two before supper. The circumstances of a few individuals and families may indeed require a different course, but not often.

The cold tub bath, whenever its use is indicated, except

in hot weather and in cities or towns, where convenient places for the purpose cannot be found, should usually give place to the more free exercise which can be obtained in some brook, river, pond, lake or sea. Great care ought to be used, however, in swimming, not to swim too long. Many who might go home invigorated in mind and body, by swimming five or eight minutes, will go home after swimming twenty or thirty minutes, languid, and cold, and stupid; and wonder what ails them. There is so much mistake abroad on this subject, that notwithstanding all we have said, in another place, we must dwell upon it a little longer, and endeavor to make it a little plainer.

There is a sort of tide in relation to human vigor. When we first rise in the morning, our blood and spirits, which had been at a very low ebb the preceding evening, are partially restored to their primitive condition, and there is an approach to full or flood tide. This is indicated, not only by our feelings, which are cheerful and joyous—so much so that mistaking the causes for external ones, we talk a great deal, the world over, about the pleasantness of the morning—but also by an increase of strength in the pulse, as well as increased strength of the lungs and quiet respiration. But the tide of the blood and animal spirits is not yet quite full. Moderate exercise and a light breakfast, followed also by a diligent application to business in some useful and active employment for a time, render respiration and circulation somewhat slower, but yet stronger; and at about two or three hours after breakfast, the system reaches what we have called full or flood tide. Then it is that the heart beats strongest, the respiration is fullest, the energy of the brain and nerves, and indeed of every vital part, is increased to its highest point. This period varies considerably in individuals of different constitutions and habits. In the feeble, it often arrives sooner; and in the stronger, later. In a

person, moreover, who rises at four, and breakfasts at five, it cannot be expected to arrive so soon after breakfast as in one who rises at the same time and breakfasts at seven or eight. All therefore we can say is, in general, that some two, three or four hours after the morning meal, the system reaches its highest point of health and strength, and is best able to resist any attacks made upon it, whether by cold water or any thing else.\* From the period above-mentioned, till twelve, one, or two o'clock, there is a slight increase of the force of the circulation and respiration, accompanied by a corresponding loss of general strength and vigor—an ebbing of the tide, as we have called it. Dinner and its accompanying rest and relaxation, especially if the dinner be proper in quality, and not excessive in quantity, restores, in part, our strength and vigor, but not entirely; and it is not long after dinner before the *ebbing* becomes considerably rapid again; nor is it greatly interrupted by the refreshment of the third meal, or the relaxation of evening; although the decline of strength and energy is much less rapid when the supper is early and light, and we retire to rest in good season.

With this explanation, we are now prepared to say with more distinctness, what we have already said in part, that the best time for the cold bath, where the individual can spare the time as well, is just before the arrival of what we have called *full tide*; because then it is that the vital powers can best resist the shock of the cold, on its first application, and rally under it.

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\* From these physiological views may at once be gathered the principal reasons why the morning, or at least the early part of the day, is the best time for study, or indeed for any thing else; and why any thing which is likely to draw particularly hard upon the powers of the mind or body, should be attended to, either early in the morning, or during the forenoon, rather than in the afternoon or evening.

For want of proper knowledge on this subject, thousands have been greatly injured by the cold bath, who might otherwise have been as greatly benefited by it. We have seen many a student who, having learned from books or from some half-physician that the sanitary effects of cold bathing, in the morning, were sometimes truly wonderful, has commenced the practice without proper precaution, attended to it at too early an hour, and remained too long in the water, and thus not only defeated his object, but greatly debilitated his whole system, if indeed he has not destroyed himself for life.

We do not mean to say that the strong and robust may not often withstand the shock of the cold bath when administered while the powers of the system are already ebbing;—this we have fully conceded. Nor do we say that no person whatever should bathe in cold water before breakfast. All we mean to do is to point out the best hour, both for the benefit of those who are just commencing the practice, and for those who are constitutionally timid and feeble. As for those who are already strong and courageous, and who wish to use the bath daily, not so much for its strengthening or *tonic* effects, as for the purposes of cleanliness, and who have it not in their power to choose their hour, but must either bathe when they first get up or defer it till noon, it would undoubtedly be well for them to bathe at rising. It is thus easily and readily attended to; the habit is soon formed; and what was at first not a little troublesome, becomes not only second nature, but rather pleasant than otherwise, and greatly refreshing.

But is it easy, always,—we shall be asked,—to have the means at hand of using the shower bath? Not if we are travelling; nor is it always convenient in other circumstances. To those who are stationary, however, it is not at all difficult. We have seen various forms of adminis-

tering the shower bath which were very simple. The simplest we have ever known consisted simply of a large coarse basket suspended a little higher than the head, and a pail. The basket was suspended in such a manner, that it could be readily turned down upon its side, and kept in that position until a pail of water had been placed in it. Then when all was ready, by pulling a cord the basket was suddenly restored to its upright position, which of course would overturn the pail of water and permit its contents to fall in a violent shower through the basket. No one surely needs to excuse himself on account of expense or inconvenience, from the discharge of a duty so easily performed.

We have admitted elsewhere, that to the feeble there is another and perhaps a better way of commencing the application of cold water than in the form of a shower; though even here there is considerable room for beginning gradually. We can let the water fall on our head and arms at first, or on our shoulders or chest, or on our lower limbs, deferring the full application of it for several days. But to the timid and feeble, and to those who are travelling abroad, there is a method always accessible, which is nearly as good as the shower bath, and for the purposes of cleanliness, on the whole preferable. Indeed, for all those who are healthy, and whose principal object is cleanliness—especially during the summer and autumnal season, we like it quite as well as the shower bath. We allude to the application of cold water with the sponge, with a cloth, or with the hand.

A bowl of water can always be had, or almost always, and a towel. The towel, if used to apply the water, may be wetted and wrung partly dry before it is applied. The sponge, if used, may be used in a similar manner. The manner of using the hand, we need not describe. Indeed, the whole process has been pretty fully described



under another head, and need not be repeated in this place.

In speaking of the general importance of bathing—especially cold bathing—we might have said something of its effects in hardening the system against cold; and in particular, against *taking* cold. These are certainly very striking; did our limits permit, we might dwell at considerable length on the subject. We might fill several pages with the credible statements of individuals who, even late in life, have entirely broken up a confirmed habit of taking cold by inuring their systems to cold bathing. We honestly believe that most persons may thus prevent at least nine-tenths of their colds; and as the latter are the source of a large proportion of the diseases of our unsteady climate, we see not why we might not, in this way alone, prevent as much as half of the sickness and suffering, and premature death among us.

We might have spoken also of the importance of cold bathing, in summer, as a means of keeping us cool. This result is accomplished in two ways.

*First*, Directly. Those who have made the experiment, need not be told that they are obviously cooler for hours together, after using the cold bath in a hot summer morning, or during a sultry summer forenoon.

*Secondly*, By the increased physical strength it gives us. It may not be generally known—indeed it seems quite obvious that it is not—that whatever increases our strength and vigor permanently, enables us to bear better the extremes of heat or cold. The cold bath, therefore, hardens us not only against the cold itself, but also against an excess of heat; and enables us to endure better our toil under a sultry sun.

We have spoken of cooling ourselves, directly, by the application of cold water to our bodies. Now there are individuals among us, who, not understanding the prin-

ciples which we have laid down above, suppose that all going into water, in hot weather, when there is the least degree of unnatural heat about us, is decidedly injurious. But according to Drs. Rush and Coffin, as well as many other writers, there is no danger from going into the water, or from sponging ourselves with it, however cold it may be, provided it is done at what we should call—in our own way—the full tide of the system. Men who are laboring hard and perspiring freely, if not fatigued, may apply cold water to their bodies, or drink it in small quantities, or even plunge into it, provided they do not sit still afterward, so as to prevent a re-action. Let the individual who rises at four o'clock, labors moderately till six, then eats breakfast, then labors on again till eight or nine o'clock, till he is in a free perspiration—let him, we say, if he chooses, plunge into cold water, we care not how cold it is, provided he does not stay in it but a moment; but let him not do this an hour or two later, when his hard labor and free perspiration have reduced his strength. Nor let him do it, above all, in the afternoon, or towards evening. Alexander came near destroying himself by plunging into the cold waters of the river Cydnus; but it was at the close or nearly at the close of a long and severe day's march. Had he done it when he had only marched six, or eight, or ten miles in the morning, the effect would have been quite different. In short, the great rule in this matter is, always to bathe so as to secure a glow of warmth after it. If this glow or re-action can be secured, we are always safe; if not, there is always greater or less of danger.

Let us now sum up the rules or principles of this essay in as few words as possible.

1. Daily bathing is indispensable. First, That the skin may assist the lungs properly, in the great work of purifying the blood, and that our respiration may be easier

and better. Secondly, That it may perform properly, the work of perspiration. Thirdly, That it may transmit healthful sympathies to the other parts of the system. Fourthly, To prevent diseases of various kinds. Fifthly, To harden the system, and enable it to bear more easily the extremes of heat and cold.

2. The cold bath—either the shower bath, the plunge in the tub, or stream or pond, or the sponge or hand bath—is in general the most invigorating, besides being most accessible.

3. By using suitable precautions, almost any person, however delicate or tender, may learn to use the cold bath, both with safety and advantage, in any of its forms.

4. We should endeavor to bathe when both body and mind are in the highest healthy state of vigor.

5. We should never use the cold bath when the temperature of our bodies is below the standard of health. A few degrees above are far more safe than a single degree below.

6. We should never remain in the water, or wet with the water, any longer than is just necessary to secure the re-action or glow of warmth.

7. The best hour for cold bathing, in every form, is about half way between breakfast and dinner; but the hour of rising, when more convenient, is by no means inappropriate. For the warm or tepid bath, the hour of retiring for sleep is one of the best.

8. We should seldom, if ever, bathe immediately after eating a meal.

One question will, no doubt, still arise in the minds of many; and it is certainly an important one, and deserves a few moments of consideration. This question is, whether the cold bath should be continued daily when we are unwell, as with a severe cold, sick headache, an attack of rheumatism, &c.

Nothing is better proved, than that the omission of the cold bath for a week or two, in the case of those who, before adopting it, were subject to a particular complaint, will ensure its return; and also that on resuming it the complaint will often immediately disappear. What, therefore, will cure an individual cannot be supposed, in any circumstances, as likely to aggravate his disease. And what we should thus infer, from the very nature of the case, is found to be true in point of fact. Multitudes not only continue the cold bath during the attacks of various complaints to which they are subject, but even derive benefit therefrom. Many a cold has been mitigated by persevering in the use of the sponge or hand or shower bath, as well as many an incipient attack of rheumatism or fever broken up. Some parents go so far in this matter, as not to omit the bath for a single day, during the whole progress of measles, hooping cough, mumps, &c., in their children. Perhaps this is going too far, but we cheerfully confess that we have never known any mischief to follow from what we should once have thought a very bold practice.

We press the consideration of this subject on all classes of the community, especially on parents. There is no danger to any person, as we have already seen, in the gradual adoption of the habit of daily cold bathing. But the benefits to be actually derived are much greater to the young than to those whose habits are already formed. Begin to wash a child daily—first with tepid and afterward with cold water—as soon as he is born, and continue it faithfully through infancy and childhood, and you will find, that as in other things, so it is in this, he will hardly depart, in youth, manhood or age, from what he was trained to prior to those periods. The blessings which would follow from keeping clean so large an extent of surface as that of the human body, and from hardening

and invigorating the system through this medium, are absolutely incalculable. And the subject is the more important, because it is so exceedingly neglected by a community like our own, who, though they can best *endure* its neglect, would at the same time be best repaid for all the trouble and expense to which so salutary a practice would expose them. We would that in erecting every house, all the necessary apparatus for cold bathing, in every form, and even for tepid bathing, were deemed as indispensable as a parlor or a bed-room; and that in building a city or village, public baths were as regularly established as public walks, or commons, or buildings. When will the laws of God in these matters be attentively considered and duly obeyed? When will mankind endeavor, in all their employments and arrangements, to glorify God in their bodies and spirits which are his?

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### KEEPING COOL.

To keep cool, is an important direction, at almost all times, and under almost all circumstances, whether it refers to the body merely, or to the mind and the heart. For though there is such a thing as being too cool, the contrary extreme is much the most common. Hundreds are injured by too much heat, external or internal, for one who is injured by too little.

One important benefit to be derived from habitual cold bathing, as has been suggested in the foregoing essay, to which this is intended as an appendix, is, that it greatly assists us in keeping cool.

It does so, 1st, by its immediate effects on so extensive a membrane as the skin; 2d, by enabling the skin to perform better its varied offices, especially the work of

perspiration. Who does not know, even without reading what we have already said on the subject, that a cleanly skin is favorable to free perspiration, and that moisture, in the process of evaporation, greatly cools the surface from which it is evaporated?

A leading direction to the invalid—especially in the case of eruptions of the skin, or the inflammatory affection of an organ or part, external or internal, especially in the case of weak or inflamed eyes—is, *keep cool*. Such advice, when applied in its fullest extent, would be happily adapted to three fourths—if not to nine tenths—of the living, moving world. Probably more than nine tenths of the community, above two years of age, have more or fewer of the membranes of their bodies in an unnatural state—a state of excitement—a condition which physicians regard as a state of sub-inflammation.

“KEEP COOL, KEEP COOL,” then, the universal prescription is, or might be. But what is it which is to be kept cool? Do we understand this point clearly and fully? To keep cool, in the fullest sense of the term, would it not be to keep cool the whole body—its fluids as well as its solids. Would it not be to keep cool the heart, the arteries, the veins, with the twenty-five or thirty gallons of blood in them—the digestive organs, and all the organs concerned in the formation of blood—we mean the stomach, the liver, the pancreas, the absorbent vessels, and the whole intestinal canal? Would it not be to keep cool the lungs also, with all their numerous divisions and innumerable cavities or cells? Would it not be to keep cool the brain—the thinking organs—and its appendages, the spinal-marrow, with the thousand branches that rise out from each, called nerves? Surely it is no small matter to keep all the membranes and organs of so complicated a body as ours, at all times perfectly cool.

The skin alone is estimated to embrace an extent of

surface equal, in a middling sized adult, to about fifteen square feet. Then there is a membrane not unlike it, but thinner and more delicate, which lines all the cells or cavities of the lungs, whose extent is thought to be about equal to that of the skin. A third membrane, not unlike the skin, lines all the rest of the cavities of the body which have any communication with the air—the eye, the ear, the nose, the hollows in the cheek bones, and in the forehead near the nose, the mouth, the swallow pipe, the stomach, the pipe which leads to the gall bladder and the pancreas, and indeed the whole intestinal canal, and many other parts—and is believed to be equal, in extent, to ten square feet. Now here are three membranes, or rather three divisions of the same great membrane, which alone present a surface of about forty square feet. To keep even these cool—saying nothing of the other organs, and especially of the blood—is, we repeat it, no very trifling task.

How indeed can it be done? In no other way, surely, than by noticing the causes which affect these surfaces, by exciting or irritating them, and to allay irritation, or prevent it. When we know what substances tend, by excess or otherwise, to affect the temperature of any of these parts, we have but to attend to and regulate the application of those substances.

We can never keep as cool as we ought, while the skin is over-heated by too much clothing, and especially by clothing which is too irritating. For without entering upon the discussion of the question whether flannel next to the skin is necessary in our climate, were we not trained to its use, we may at least say, that it confines the heat of our bodies so much, and has such a tendency to over-excite the skin, and consequently to over-heat the system, that it should never be used except when absolutely and indispensably necessary to our immediate

comfort. Nor should we sleep in beds which are made of improper materials, nor under covering of improper quality, or in too great quantity. Nor should we remain, by night or by day, in rooms whose atmosphere is at a higher temperature than is just necessary.

One reason for keeping the skin and all the other portions or organs of the body as cool as we can, is to preserve their tone, and elasticity, and vigor, and enable them to fulfil best all their varied offices. Now one office of all the living vital organs of the human system appears to be to *generate human heat*; and as it is indispensable to the welfare of an organ that it performs all its offices—the office of *manufacturing heat*, as well as the rest—it is obvious that if, by the application of too much *artificial* heat to the system or to any organ or part of the system, we prevent the necessity, to that organ or part, of its fulfilling its task in the work of generating or manufacturing *natural* heat, then that part or organ must be weakened by inaction. Indeed, its original power to generate heat—even that measure of internal heat which is indispensable to health—is thus diminished. Thus, one reason for the injunction to keep cool, is, that we may keep warm; or, in other words, that we may maintain the highest possible degree of health and vigor,—the best means of maintaining a temperature neither too high nor too low, at all seasons and in all circumstances.

But it is not enough that we so manage all the circumstances of clothing, sleep, air, bathing, &c. as to keep our skin cool; though to do this, were to do much. We may heat ourselves through the instrumentality of the brain and nerves. Over-anxiety and fretting, by their “wear and tear,” induce a feverish state; and so do even hard study, and studying at late hours. No person can be cool who sits up half or all the night to read an exciting novel. The trouble in this case, however, is, that



we combine several sources of too much heat. We are excited; we sit up late; we often sit or remain in an atmosphere too much heated; we have a late or exciting supper on our stomachs, (tea perhaps among the rest,) and we sleep, or attempt to sleep, on a hot feather bed, and covered perhaps with what is called a comfortable.

The mention of heavy suppers and exciting drinks, reminds us of another fruitful source of too much heat. No person can be cool, whose stomach is daily, perhaps almost hourly, irritated by the presence of fermented or alcoholic drinks; or by tea or coffee; or by what are called condiments. Nor can he be cool whose blood is made from high-seasoned or oily food, or pastry; or even by a superabundance of plain food. The latter, indeed, excites and irritates, *indirectly*; but not therefore the less surely. Does any one suppose that a body can be cool, through which a painful of blood, heated by cider, wine, beer, tea, coffee, oil, pepper, spice, mustard, cheese, vinegar, &c. is coursing its way every four minutes?

There is one more class of substances that heat the blood, and by consequence, the whole system; we mean drugs and medicines. All the drinks we have just mentioned—and indeed some of the eatables—are properly drugs; but there is another, and if possible, a more heating class; viz., opium, spirits, tobacco, picra, pills, &c. Nobody can keep cool, that does not keep clear of medicine. But we have said enough of dosing and drugging, elsewhere.

The direction then to keep cool, is one of no ordinary importance. To know how to keep cool properly, without falling into the opposite extreme of keeping *too* cool—a thing by no means impossible—requires a thorough knowledge of the human constitution, in all its functions, laws and relations.



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